

PATENT APPLICATION  
Attorney's Do. No. 1981-1

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of: Andrew M. PERRY

Serial No. 08/689,721

Examiner: R. Luebke

Filed: August 12, 1996

Group Art Unit: 2832



For: **DEVICE FOR SUSPENDING A RECORDER AND A METHOD FOR  
USING THE SAME**

**TRANSMITTAL LETTER**

Assistant Commissioner for Patents  
Attn: Board of Patent Appeals and Interferences  
Washington, D.C. 20231

Enclosed for filing in the above-referenced application are the following:

- ☒ Appellant's Brief (in Support of Appeal), in triplicate.
- ☒ A check in the amount of \$150.00 to cover the Appeal Brief fees.
- ☒ Any deficiency or overpayment should be charged or credited to deposit account number 13-1703. A duplicate copy of this sheet is enclosed.

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*[Signature]*

Respectfully submitted,

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ATTENTION: Board of Patent Appeals and Interferences  
Commissioner of Patents and Trademarks  
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40/Appeal  
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**APPELLANT'S BRIEF**

**UNDER 37 CFR §1.192**

Appeal is taken from the Examiner's Office Action mailed January 7, 2000, finally rejecting claims 11-13 in the instant application.

[Another Office Action, paper No. 37, having identical content and a mailing date of January 27, 2000, was also received by the Applicant. The Applicant assumes it was mailed in error.]

This Appeal Brief is in furtherance of the Notice of Appeal mailed in this case on March 23, 2000.

The fees required under §1.17(c) and any required petition for extension of time for filing this Brief and fees therefor are dealt with in the accompanying TRANSMITTAL OF APPEAL BRIEF.

This Brief is transmitted in triplicate. Each of the three copies is originally signed.

This Brief contains these items under the following headings, and in the order set forth below.

## **TABLE OF CONTENTS**

- I. REAL PARTY IN INTEREST
- II. RELATED APPEALS AND INTERFERENCES
- III. STATUS OF CLAIMS
- IV. STATUS OF AMENDMENTS
- V. SUMMARY OF INVENTION
- VI. ISSUES
- VII. GROUPING OF CLAIMS
- VIII. ARGUMENT
- IX. APPENDIX (ADDENDA)

### **I. REAL PARTY IN INTEREST**

#### **37 CFR §1.192(c) (1)**

The real party in interest is the individual named in the caption of this Appeal Brief. There has been no assignment.

### **II. RELATED APPEALS AND INTERFERENCES**

#### **37 CFR §1.192(c) (2)**

The Board's decision in the present Appeal will not directly affect, or be directly affected, or have any bearing on any other appeals or interferences known to the appellant, or to the appellant's legal representative. There is no assignee.

### **III. STATUS OF CLAIMS**

#### **37 CFR §1.192(c) (3)**

Status of All the Claims:

1. Claims presented: 1-13
2. Claims withdrawn from consideration but not cancelled: NONE
3. Claims previously canceled: 1-10
4. Claims pending: 11-13  
of which:
  - a. no claims are allowed, and
  - b. claims 11-13 are rejected.
5. Claim 13 has been rejected as being “the same as claim 11, and will not be allowed in view thereof”, by the Examiner. The Applicant does not contest this finding by the Examiner.

Pending claim 13 is not a subject of this appeal. The Applicant intends to cancel claim 13, if copending claims 11 and 12 are allowed as presently pending. To expedite matters, if claims 11 and 12 are found patentable as presently pending, the U.S. Patent Office is hereby authorized to cancel claim 13 by a suitable action (such as an amendment).
6. The Examiner’s rejection of Claims 11, 12 is contested, and thus Claims 11, 12 are being hereby appealed. The appealed claims are eligible for this appeal, having been finally rejected.

#### IV. STATUS OF AMENDMENTS

##### 37 CFR §1.192(c) (4)

Subsequent to the last Office Action mailed on January 7, 2000, which contained the Final Rejection of the appealed claims, no amendment has been filed.

##### Results of the amendment:

[The specification was initially written by the applicant pro se. A number of amendments have been attempted since then, some of which were entered, and some not.]

Accordingly:

the Abstract stands as initially filed in August, 1996; and

the Specification stands as presented by the Applicant in an amendment the applicant filed on June 2, 1997, and as further amended by the Applicant's attorney in a Preliminary Amendment mailed February 26, 1999.

A duplicate of the application, as pending, is presented in Addendum 2 of the Appendix. References to the Specification are made using the page and line numbers of the appended specification.

##### Appearance of the Specification and Abstract

The Specification and Abstract were not retyped, and that was for two reasons:

- 1) Preservation of record: so as to preserve the references made to it by page number and line number in the subsequent discussions. As such, the specification is as it appeared from the version of June 2 1997, with the permitted amendments of the February 26 1999 document shown as interlineations and added handwritten text.
- 2) Uncertainty about the record. The Abstract is shown in the Appendix with the words "just forward of the mouth piece" crossed out. This crossing out is of unknown origin, and appeared in the copies that the attorney received when he took prosecution over from the pro se applicant. The applicant's attorney is unable to determine whether the application was filed with the Abstract appearing that way, or whether that crossing out was made later on the applicant's copy, before the Attorney's services were engaged. The Applicant believes the uncertainty to not be germane to the issues of this Appeal. The Applicant will be requesting the Office's record on this matter.

## V. SUMMARY OF THE INVENTION

### 37 CFR §1.192(c) (5)

The invention teaches a method for suspending a musical instrument called a recorder from the neck of a user with a neck strap. (P.1, l. 4-7). The method can be practiced with a special device of the invention that can be seen in Fig. 2, below. A ring 1 is attached to a neck strap 2.

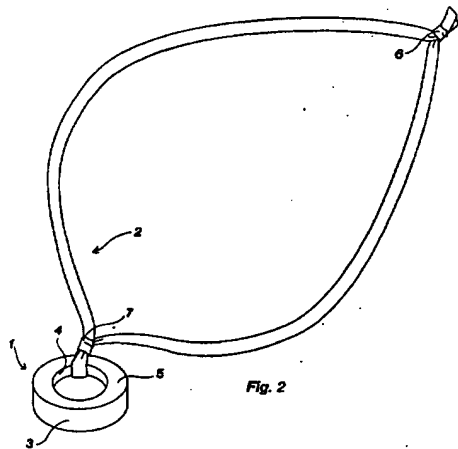


Fig. 2

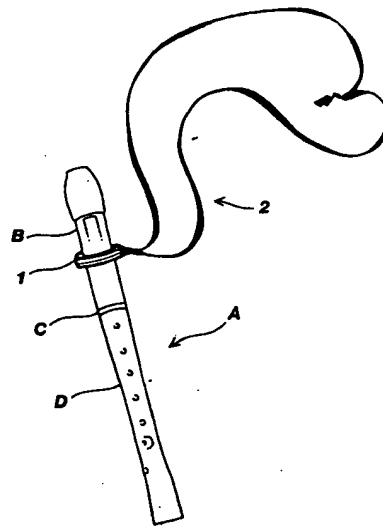


Fig. 3

The recorder, as suspended per the invention, is seen in Fig. 3, above. The neck strap 2 hangs from the neck of the user. (P.4, l. 23, substituted text.)

Intermediate steps are disconnecting the recorder A at juncture C into two pieces B and D, then sliding the ring 1 until it is lodged in the position shown in Fig. 3, and then reconnecting the recorder A. (P. 2, l. 14-22; p.4, l. 16-22).

It will be appreciated that the inside diameter 4 of the ring is custom sized to be larger than that of the recorder A at juncture point C, but smaller than that of the recorder at the mouthpiece end. This way it becomes lodged at the point in between the two ends of piece B, as shown. (P.4, l. 3-9)

## VI. ISSUES ON APPEAL

### 37 CFR §1.192(c) (6)

Claims 11, 12 are given the same single ground for rejection. That ground is lack of enablement of the *order* or *sequence* of performing two steps, each of which steps is conceded to be otherwise enabled.

In particular, the Examiner concedes that the specification teaches the steps to:

- (a) suspend the strap from the neck of the user; and
- (b) pulling the recorder apart (to place the ring thereon).

Both claims 11 and 12 require the following order or sequence: that step (b) be performed after step (a).

The rejection is founded on the assertion that this *sequence* of the steps [i.e. first (a), then (b)] is not enabled. Namely, that “the specification, while being enabling to pull the recorder apart and then placing the ring thereon, does not reasonably provide enablement for performing this operation *after* the strap has been placed on the neck of the user.” (italics original) [Last Office Action, page 2, par. 2.]

**The issue before the Board** is thus whether claims 11-12 are unpatentable under 35 U.S.C. § 112, first paragraph, as being based on a disclosure that allegedly does not provide enablement for a certain method step to be performed *after* another method step.

## VII. GROUPING OF CLAIMS

### 37 CFR §1.192(c) (7)

Claims 11 and 12 are independent claims. They are addressed to different patentable subject matter.

For purposes of this appeal, there is a single ground of rejection, for each of the appealed claims 11 and 12. As to that single ground of rejection, namely the alleged lack of enablement, claims 11 and 12 stand or fall together.

**VIII. ARGUMENT**  
**37 CFR §1.192(c) (8)**

The issue of enablement is thus decomposed into two questions:

**QUESTION 1:**      Are Claims 11, 12, based on a disclosure that provides reasonable enablement for a certain method step to be performed *after* another method step?

(If yes, the claims are allowable.)

**QUESTION 2:**      Even if Question 1 is decided in the negative, do Claims 11, 12 describe the invention in a way that to practice it would require undue or unreasonable experimentation?

(If not, then the claims are allowable.)

The Applicant contends that the disclosure reasonably enables the order of the steps, and even if not, that claims 11 and 12 do not claim the invention in a way that requires undue or unreasonable experimentation. More particularly:

**ANSWER TO QUESTION 1:**      YES: Claims 11, 12 are based on a disclosure that provides reasonable enablement for a certain method step to be performed *after* another method step.

First, common sense dictates that there are only three possible sequences for performing one step relative to another. These sequences are for one step to be performed before, during or after the other step. The Examiner must concede that at least one of these sequences has been enabled.

Second, the Board is respectfully referred to the Disclosure. The whole disclosure is replete with interspersed references to both steps and their results. As such, the Applicant maintains that the specification reasonably enables all three possible sequences. (Claims 11, 12 are for only one of the three.)

Third, the claimed sequence of the steps is reasonably enabled at least implicitly from



the disclosure. Once the strap is worn, with the recorder suspended, then if the recorder is removed for additional use, its re-suspension would be from a ring with a strap that is already hanging from the user's neck. (That is also the claimed sequence.) That particular scenario was not explicitly mentioned, because it did not need to be. It was covered under "such drawings and description disclose only some of the various ways in which the invention may be practiced" (p.3, l. 4-6) of the specification.

Fourth, such a holding would be consistent with common patent practice. At least another patent, cited by the Examiner against this application, must be construed to be reasonably enabling as to its own claims, because it was allowed. That prior art patent is U.S. Patent No. 5,167,356, and reproduced in Appendix C. It is about a special coin holder with a strap for suspending from a child's neck, and a method for using it. The entire disclosure does not discuss when, in relation to other steps, the strap is placed around the neck of the child. Yet in its allowed claim 6, step (g) recites "wearing said chain on said user's body". This placement is construed to cover all three possible sequences of other steps relative to step (g), including that the chain is worn first. That patent was allowed, so it must have been deemed to be enabling as to all three possible sequences. The present application should be similarly deemed enabling as to all three possible sequences, even though claims 11, 12 claim only one of the three.

Finally, the rejection alleges that the specification "does not reasonably enable" a specific one of these three possible sequences (before, during, and after). The fallacy of this allegation would be more apparent if the rejection had further specifically identified what information is missing, and why the missing information is needed to provide enablement. But the rejection did not go so far as to include any statements of the type: "What is missing for enablement is an order (or sequence) of performing these claimed steps.", or "The sequence of the steps is needed to provide enablement because (with a purported reason)." (By the way, M.P.E.P. Section 2164.06(a) requires both types; the Examiner may want to provide them in the Answer.)

If the Board's decides that reasonable enablement is provided, then it does not need to reach the next issue.

**ANSWER TO QUESTION 2:**     NO: Claims 11, 12 describe the invention in a way that to practice it does not require undue or unreasonable experimentation.

1)     **THE STANDARD OF DETERMINING ENABLEMENT**

The standard for determining whether the specification meets the enablement requirement was cast in the Supreme Court decision of *Mineral Separation v. Hyde*, 242 U.S. 261, 270 (1916) which posited the question: is the experimentation needed to practice the invention undue or unreasonable? That standard is still the one to be applied. *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988). M.P.E.P. Section 2164.

The test of enablement is not whether any experimentation is necessary, but whether, if experimentation is necessary, it is undue. *In re Angstadt*, 537 F.2d 498, 504, 190 USPQ 214, 219 (CCPA 1976).

There are many factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement and whether any necessary experimentation is "undue". M.P.E.P. 2164.01(a). These factors include, but are not limited to:

- (A) The breadth of the claims;
- (B) The nature of the invention;
- (C) The state of the prior art;
- (D) The level of one of ordinary skill;
- (E) The level of predictability in the art;
- (F) The amount of direction provided by the inventor;
- (G) The existence of working examples; and
- (H) The quantity of experimentation needed to make or use the invention based on the content of the disclosure. *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988)

2) **DETERMINATION OF ENABLEMENT IN THIS CASE**

These factors are analyzed individually in this section. The ... analysis must consider

all the evidence related to each of these factors, and any conclusion of nonenablement must be based on the evidence as a whole. 858 F.2d at 737, 740, 8 USPQ2d at 1404, 1407. It is improper to conclude that a disclosure is not enabling based on an analysis of only one of the above factors, while ignoring one or more of the others. M.P.E.P. 2164

(A) The breadth of the claims.

The claims include steps that are conceded as enabled. As such, at least one of the three possible sequences for performing them must have been enabled.

What is also claimed in all the appealed claims is a specific one of the three possible sequences of performing them. Namely, that the strap is first suspended around the neck, and the recorder is afterwards suspended from the ring.

The rejection alleges that that specific sequence is not enabled. The Applicant disagrees with that allegation, as per the above. In any event, the Applicant submits that the claimed sequence or order can be found without undue experimentation.

(B) The nature of the invention.

The nature of the invention is a device and a method of suspending the recorder. The device is a ring with a strap. The strap goes around the neck of a child, and the recorder goes on the ring. These two steps do not depend on each other. One does not require the other. As such, they can be done in either order, or even simultaneously.

(C) The state of the prior art.

Whether the specification would have been enabling as of the filing date involves consideration of the state of the prior art. The state of the prior art is what one skilled in the art would have known, at the time the application was filed, about the subject matter to which the claimed invention pertains.

U.S. Patent 5,167,356 was cited as prior art. It involves a strap attached to a special shaped ring. The strap goes around the neck of a child, and the ring is specially made for supporting thereon a coin. These two steps do not depend on each other. One does not require

the other. As such, they can be done in either order, or even simultaneously. The description section, however, does not mention a specific sequence of performing these steps, yet it claims all possible sequences (which are thus found enabled, or understood in the art).

The specification need not disclose what is well-known to those skilled in the art and preferably omits that which is well-known to those skilled and already available to the public. *In re Buchner*, 929 F.2d 660, 661, 18 USPQ2d 1331, 1332 (Fed. Cir. 1991); *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384, 231 USPQ 81, 94 (Fed. Cir. 1986), cert. denied, 480 U.S. 947 (1987); and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1463, 221 USPQ 481, 489 (Fed. Cir. 1984). Accordingly, the present specification need not disclose the order or sequence of performing the step of hanging a strap from the neck that other patents in the art treat as well-known.

(D) The level of one of ordinary skill.

The relative skill of those in the art refers to the skill of those in the art in relation to the subject matter to which the claimed invention pertains at the time the application was filed. *In re Naquin*, 398 F.2d 863, 866, 158 USPQ 317, 319 (CCPA 1968). MPEP 2164.05(b)

The nature of the invention becomes the backdrop to determine the level of skill possessed by one skilled in the art. MPEP 2164.05(a). Those using the invention are either teachers or students of music as performed by a recorder.

These people have to identify holes in the recorder, which they selectively plug with their fingers. They are capable of associating sounds generated with each set of plugged holes. Often they have to read notes (that do not have pictures of holes, but are abstractions for the sounds), and figure out which sets of holes to plug, in order to reproduce the indicated sounds. Sometimes they even have to memorize sequences of sounds.

All these operations are far more complex than figuring out whether they can put on the strap on their necks *before* securing the recorder on the ring, from knowing that they can do it *afterwards*.

(E) The level of predictability in the art.

The amount of guidance or direction needed to enable the invention is inversely related to the amount of knowledge in the state of the art as well as the predictability in the art. *In re Fisher*, 427 F.2d 833, 839, 166 USPQ 18, 24 (CCPA 1970). The "amount of guidance or direction" refers to that information in the application, as originally filed, that teaches exactly how to make or use the invention. The more that is known in the prior art about the nature of the invention, how to make, and how to use the invention, and the more predictable the art is, the less information needs to be explicitly stated in the specification. MPEP 2164.03.

The state of the prior art provides evidence for the degree of predictability in the art. MPEP Section 2164.05(b). Prior art patent 5,167, 356 teaches that, as long as one describes how to use the implement attached to a neck strap, one need not disclose exactly the sequence of when the strap is put around the neck relative to other steps. Indeed, it becomes predictable that all three possible sequences are enabled, and all three can be claimed. In the present invention, the disclosure renders all three sequences known, and any one of them enabled.

(F) The amount of direction provided by the inventor.

In the present application, the inventor does not provide a single, explicit, direct sentence that the ring is to be used after putting on the neck strap. Lack of such an explicit statement, however, does not mean that such is not reasonably enabled.

The inventor does provide, however, guidance that the strap should be worn around the neck and, importantly, how the recorder is to be suspended from the ring. This is done in a number of places, which enables all three possible sequences.

In addition, the state of the prior art is related to the amount of direction or guidance needed in the specification as filed to meet the enablement requirement. MPEP Section 2164.05(b). The inventor needs to provide as much information as is provided in similar circumstances. Indeed, the inventor provides no less guidance than prior art patent 5,167, 356.

(G) The existence of working examples.

The state of the prior art is also related to the need for working examples in the specification. MPEP Section 2164.05(b). The specification need not contain an example if the invention is otherwise disclosed in such manner that one skilled in the art will be able to practice it without an undue amount of experimentation. *In re Borkowski*, 422 F.2d 904, 908, 164 USPQ 642, 645 (CCPA 1970).

Indeed, as discussed above, working examples do not seem to be provided in prior art patents in this art. This suggests that the present application needs to offer none, enabling the specific claimed sequence of performing the steps.

(H) The quantity of experimentation needed to make or use the invention based on the content of the disclosure.

The quantity of experimentation needed to be performed by one skilled in the art is only one factor involved in determining whether "undue experimentation" is required to make and use the invention. MPEP 2164.06. "[A]n extended period of experimentation may not be undue if the skilled artisan is given sufficient direction or guidance." *In re Colianni*, 561 F.2d 220, 224, 195 USPQ 150, 153 (CCPA 1977). "

Since the steps themselves were enabled, the Examiner is asked to concede that at least one of the three possible sequences is enabled. The Examiner is asked to identify to the Board which, if any sequence or order of these steps she regards as enabled.

Trying of the other two should last less than 20 seconds each. A total of 1 minute should be enough for an exhaustive search. There is no expense in trying the remaining steps. This is not undue or unreasonable experimentation.

3) SUMMARY ALL FACTORS TAKEN TOGETHER

The above analyzed factors, examined individually and taken together prove that there is no need for undue or unreasonable experimentation to practice the invention as claimed.

Indeed, the Examiner alleges that the invention is in an art where a patent was allowed, which does not provide the exact type of guidance that the Examiner alleges is missing in this

case. That patent having been allowed, it is deemed to enable the allegedly missing type of guidance. That patent is for users that need not play music, and thus are not necessarily of as high mental level as those of the present invention. That patent makes it predictable that this specific type of guidance is highly predictable, without having to be stated explicitly or provide working examples.

Starting from common sense, a search for the missing guidance should last less than a minute. That is neither undue nor unreasonable.

### **GUIDE TO APPENDIX**

#### **37 CFR §1.192(c) (9)**

The Appendix comprises the attached 3 Addenda, titled:

ADDENDUM 1 Text of appealed claims 11-12.

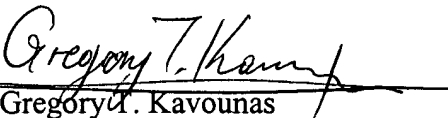
ADDENDUM 2 Copy of application as pending. (Changes shown have been made by amendment that has been entered. References to page numbers and line numbers are preserved.)

ADDENDUM 3 Copy of U.S. Patent # 5,167,356.

### **CONCLUSION**

The Appellant requests favorable consideration by the Board. If any questions remain, please call the undersigned.

Respectfully submitted,  
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## ADDENDUM 1

Text of appealed claims 11-12



The text of the appealed claims 11-12 is as follows:

11. A method for suspending a recorder from a neck of a user using a device that comprises a strap and a ring attached to the strap, the recorder comprising a lower section and an upper section joined at a juncture point, the recorder having a distal end belonging to the lower section and a proximate end belonging to the upper section, the recorder further having a mouthpiece at the proximate end, the upper section having a diameter that increases gradually from the juncture point to the mouthpiece, the ring having an inner diameter larger than the diameter of the upper section at the juncture point, the inner diameter further being smaller than the diameter of the upper section at the mouthpiece, the method comprising the steps of:

suspending the strap from the neck of the user;

pulling the recorder apart at the juncture point, thereby separating the lower section from the upper section;

then inserting through the ring an end of the upper section that is associated with the juncture point and is opposite to the proximate end, and then sliding the ring towards the mouthpiece, the ring thereby becoming lodged; and

then reconnecting the lower and upper sections at the juncture point.

12. A method for suspending a recorder from a neck of a user using a device that comprises a strap and a ring attached to the strap, the recorder comprising a lower section and an upper section joined at a juncture point, the recorder having a distal end belonging to the lower section and a proximate end belonging to the upper section, the recorder further having a mouthpiece at the proximate end, the upper section having a diameter that increases gradually from the juncture point to the mouthpiece, the ring having an inner diameter larger than the diameter of the upper section at the juncture point, the inner diameter further being smaller than the diameter of the upper section at the mouthpiece, the method comprising the steps of:

suspending the strap from the neck of the user;

pulling the recorder apart at the juncture point, thereby separating the lower section from the upper section; and

then inserting through the ring an end of the upper section that is associated with the juncture point and is opposite to the proximate end, and then sliding the ring towards the mouthpiece, the ring thereby becoming lodged.

## ADDENDUM 2

Copy of application as pending.

(Changes shown have been made by amendment that has been entered.

References to page numbers and line numbers are preserved.)

# HALO HANGER

## BACKGROUND OF THE INVENTION

### 1. Field of the Invention

This invention pertains to the general field of a neck strap arrangement for carrying a musical instrument ~~[or other object]~~.

In particular, it provides a new and improved method of carrying a woodwind musical instrument known as a recorder.

### 2. Description of Prior Art

The recorder is an instrument that is of such size that it can be carried easily. This instrument is most often used by children in early grade school for instruction in music.

Most often the child will purchase a recorder. The child will then carry the recorder to class and carry it in the hand during class. If the child needs to use the hands for another purpose, the recorder is laid down and subject to loss or confusion when play is to be continued. Also, like anything a child is forced to carry in their hands, the object can be inappropriately used as a toy, weapon, or whatever fits the occasion.

Prior art is limited to some resourceful teachers that have simply tied a string around the recorder with some sort of loop that is placed around the child's neck to suspend the recorder. Because the knots may slip, come untied or can not be readily untied, this method has not gained wide support. In addition, after the teacher has tied all the knots required by the students, the teacher has little time left for instruction. Thus, at the present time, there is no suitable means for the

1 hand free carrying of the recorder.

2 SUMMARY OF INVENTION

3 It is therefore an objective of this invention to provide  
4 a device for conveniently carrying a recorder securely affixed to  
5 a strap that is worn about the neck.

6 Another objective of the invention is the realization of  
7 the above mentioned objective with simple, reliable and  
8 inexpensive hardware.

9 In accordance with these and other objectives, the method  
10 and apparatus of this invention consist of a ring and an attached  
11 strap. The ring is made of resilient material and is of  
12 sufficient inside diameter so as to fit, after the strap has  
13 been secured to the ring, snugly around the shaft of the mouth  
14 piece of the recorder. The ring is secured on the recorder by  
15 pulling the recorder apart at its dividing point and then  
16 slipping the ring around the mouth piece section and sliding it  
17 up the shaft until it is securely lodged on the shaft. Because  
18 the diameter of the shaft, of the mouth piece section, increases  
19 from the separation point towards the other end, the ring will be  
20 secure on the recorder shaft approximately one inch from the  
21 dividing point. The two pieces of the recorder are then  
22 reconnected.

23 Various other purposes and advantages of the invention will  
24 become clear from its description in the specifications that  
25 follows, and from the novel features particularly pointed out in  
26 the appended claims. Therefore, to the accomplishment of the

1 objectives described above, this invention consists of the  
2 feature hereinafter illustrated in the drawings, fully described  
3 in the detailed description of the preferred employment and  
4 particularly pointed out in the claims. However, such drawings  
5 and description disclose only some of the various ways in which  
6 the invention may be practiced.

#### 7 BRIEF DESCRIPTION OF THE DRAWINGS

8 This invention together with its features and advantages can be  
9 better understood from the following description when read in  
10 conjunction with the drawings in which

11 FIG. 1 is a perspective view of the ring of the device of  
12 the invention.

13 FIG. 2 is a perspective view of the device of the invention.

14 FIG. 3 is a perspective view of the device attached to a  
15 recorder.

#### 16 DETAILED DESCRIPTION OF INVENTION

17 The heart of this invention lies in the simple ring, which  
18 makes it possible to conveniently attach a strap to a recorder.  
19 Thus, the main objective of providing an easy method to carry a  
20 recorder is met.

21 Referring to the drawings, wherein the same reference  
22 numbers and symbols are used throughout to designate like parts,  
23 FIG. 1 illustrates the general configuration of the ring 1 before  
24 the strap 2 is attached and it is mounted on the recorder A.

25 The ring 1 has a surface 3 and 5 of such dimensions so as  
26 to provide strength enough to with stand the rigors and forces

1 that would be anticipated when the device is in use by elementary  
2 age school children. As illustrated in FIG. 1, the precise  
3 geometry of the inner surface 4 of the ring is a circle with a  
4 diameter ~~[a few thousandths of an inch]~~ larger than the diameter of  
5 the recorder A at the point of the juncture C of the two pieces  
6 B and D of the recorder A. The diameter of the mouth piece B  
7 section of the recorder A increases from the separation point C  
8 to the air hole of the mouth piece B located just above the mid  
9 point of the mouth piece B.

10 The strap 2 is made of a ~~[thin cloth]~~ material that is strong  
11 enough to hold the recorder or other desired object, yet be  
12 comfortable when placed around the neck. The knot 7 is ~~[a simple~~  
13 ~~over-hand knot]~~ tied in the middle of strap 2 after placing one  
14 end through the ring 1. Knot 6 is any knot that will neatly  
15 secure the ends of the strap 2.

16 The ring 1 is attached to the recorder A by pulling apart  
17 the two pieces B and D of the recorder A at the separation point  
18 C. The ring 1 is then slide ~~[ ]~~ onto the shaft of the mouth piece B  
19 of the recorder 1 at the end that attaches to the fingering piece  
20 D of the recorder A. The ring 1 will slip onto the mouth piece B  
21 and then lodge at a point approximately one inch up the shaft due  
22 to the slight taper of the shaft. \*ADD HERE TEXT FROM OVERLEAF

23 ~~[While the invention is described in terms of a device for~~  
24 ~~providing a means of holding or carrying a recorder, it is~~  
25 ~~obvious that the same principle could be extended to applications~~  
26 ~~involving other musical instruments or objects. Therefore, it~~

1 is understood that many equivalent devices are possible within  
2 the scope of the present invention, with different configurations  
3 of the ring. Thus, various changes in the details, steps and  
4 materials that have been described may be made by those skilled  
5 in the art within the principles and scope of the invention  
6 herein illustrated and defined in the appended claims. ] While the  
7 present invention has been shown and described herein in what is  
8 believed to be the most practical and preferred embodiment, it is  
9 recognized that departures can be made therefrom within the scope  
10 of the invention, which is therefore not to be limited to the  
11 details disclosed herein, but is to be accorded the full scope of  
12 the claims so as to embrace any and all equivalent apparatus and  
13 methods.

[ ADD THIS ] NEW PARAGRAPH TO REPLACE TEXT BETWEEN  
P.4 L.23 AND P.5 L.6, ending in "claims."

-- After a suitable strap is attached to the appropriate size ring, the ring is attached to a recorder by slipping the ring onto the upper section of the recorder. The ~~say~~ strap may be adjusted so that the recorder hangs comfortably from the neck of the person playing the recorder--

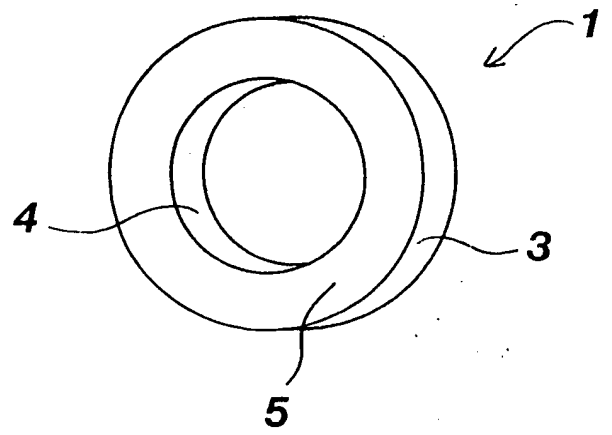


HALO HANGER

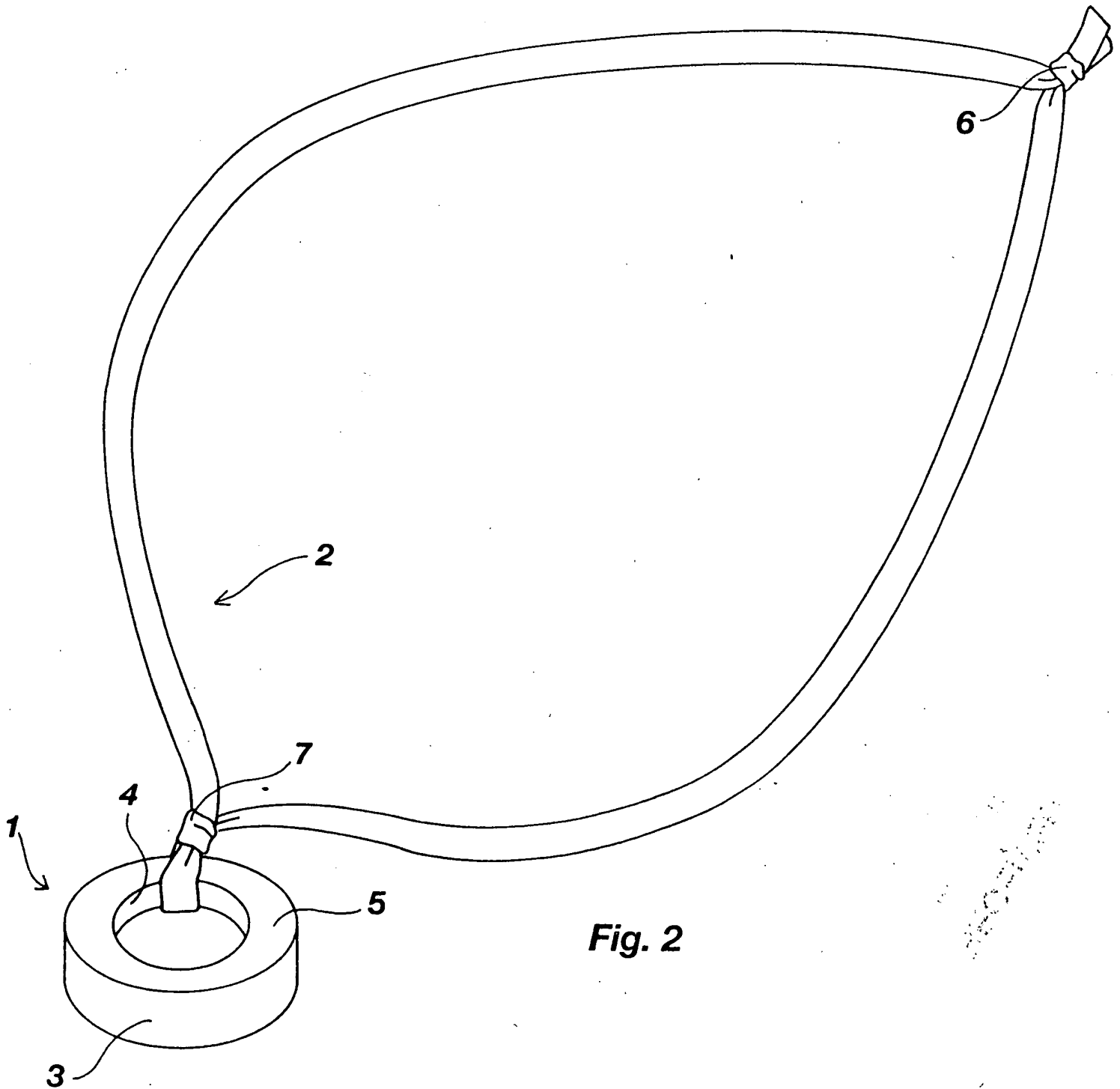
## ABSTRACT

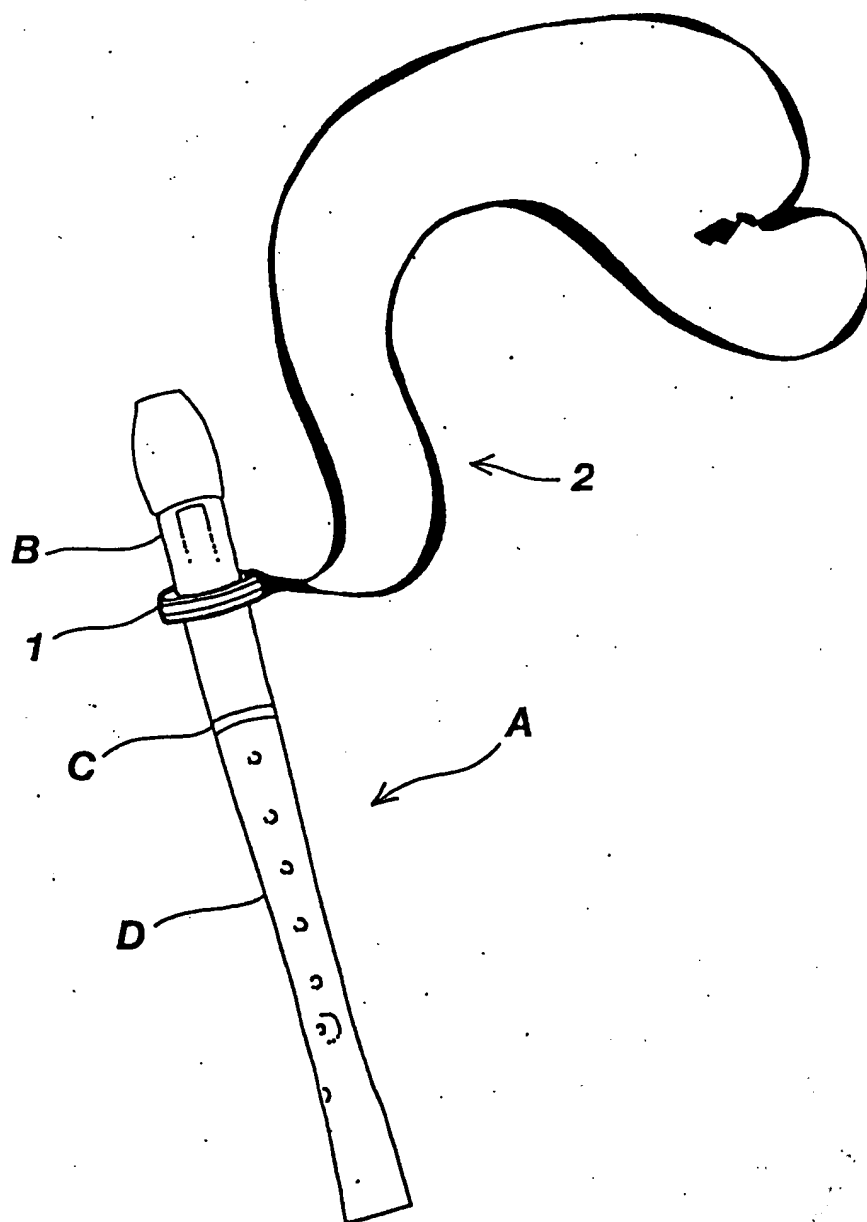
An apparatus for the carrying of a woodwind musical instrument, known as a recorder, consisting of a ring with sufficient inside diameter to fit around the shaft of the recorder ~~just forward of the mouth piece~~ and a strap attached to the ring and of sufficient length so as to fit around the neck of the person playing the recorder and allowing the recorder to hang in a position of easy access to the user.

**Fig. 1**



**Fig. 2**





**Fig. 3**

ADDENDUM 3

Copy of U.S. Patent # 5,167,356



US005167356A

**United States Patent** [19]  
**Williams**

[11] **Patent Number:** 5,167,356  
[45] **Date of Patent:** Dec. 1, 1992

[54] **EMERGENCY TELEPHONE-TOKEN  
DEVICE**

[76] **Inventor:** Carl A. Williams, 6730 N. 17th Ave.,  
No. 208, Phoenix, Ariz. 85015

[21] **Appl. No.:** 753,307

[22] **Filed:** Aug. 30, 1991

[51] **Int. Cl.<sup>3</sup>** ..... A45F 3/02; A44C 25/00

[52] **U.S. Cl.** ..... 224/202; 224/251;  
206/0.80; 63/23

[58] **Field of Search** ..... 224/202, 218, 220, 205,  
224/257, 249, 251; 206/0.81, 0.8, 0.84; 24/3 B;  
63/23

[56] **References Cited**

**U.S. PATENT DOCUMENTS**

D. 175,981	11/1955	Rubeck	.....	D11/78.1
2,358,262	9/1944	Suess	.....	206/38
3,044,606	7/1962	Frosh	.....	206/0.84
3,964,187	6/1976	Stumpf	.....	63/23

*Primary Examiner*—Henry J. Recla

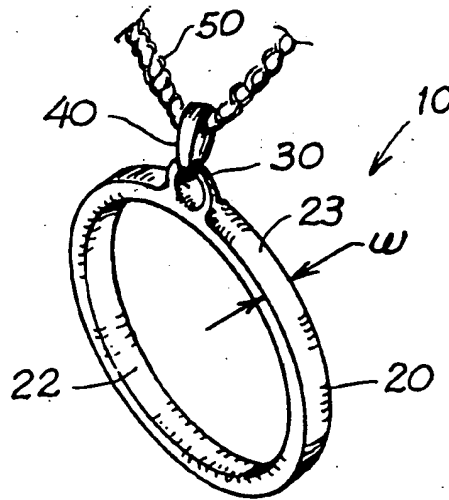
*Assistant Examiner*—David J. Walczak

*Attorney, Agent, or Firm*—Antonio R. Durando; Harry  
M. Weiss

[57] **ABSTRACT**

An emergency telephone-token device consisting of a telephone token encased in a clamping ring with a link and hook for attachment to a bracelet or necklace chain. The ring is made of resilient material and features an elliptical inner surface with a major axis slightly larger and a minor axis slightly smaller than the diameter of the encased token. The token is mounted and released simply by forcing it in and out of the ring against the pressure exerted by the portions of the inner surface corresponding to the minor axis. Such inner surface is flat and approximately twice the thickness of the token, so as to provide sufficient area of contact for it to remain in place when subjected to the impacts of normal wear. By pressing against it, a child can easily release the token from the device and use it for an emergency phone call. Another embodiment of the device includes a groove within the inner surface of the ring to further stabilize the token in place.

8 Claims, 1 Drawing Sheet



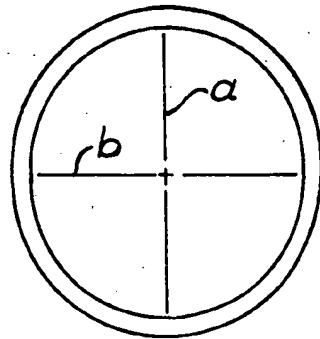


Fig. 2

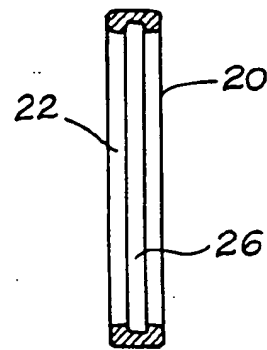


Fig. 4

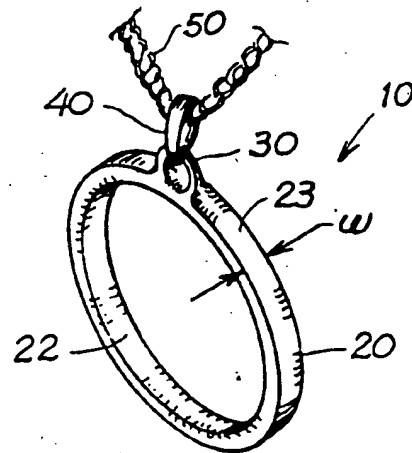


Fig. 1

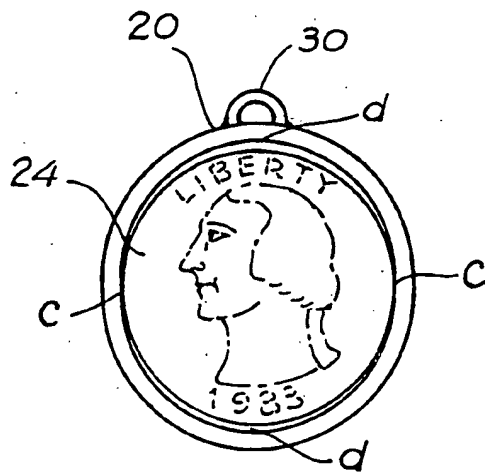


Fig. 3

## EMERGENCY TELEPHONE-TOKEN DEVICE

## BACKGROUND OF THE INVENTION

## 1. Field of the Invention

This invention pertains to the general field of holders for coins, charms, and similar objects. In particular, it provides a new and improved holder for carrying a telephone token that is easily available for use in an emergency.

## 2. Description of the Prior Art

It is commonplace for adults to give children a quarter when they leave home with instructions to save it for a phone call in case of an emergency. The problem is always how to ensure that the child will not lose the quarter in the meantime. Accordingly, people resort to hiding it in a special pocket, a shoe, or other supposedly safe place. Usually, though, the quarter is lost by the time it becomes needed.

Therefore, it would be very desirable to have a secure coin or token holder that could be worn on a chain and that made it possible for a child to easily free the coin for use when needed.

Conventional hardware exists for carrying coins, stones and charms on a chain, either on a bracelet or a necklace, but it always involves some form of permanent fastener to hold the ornamental piece in place. The result is that the piece cannot be released without the use of a tool or, in the case of spring-loaded snap-type latches, without the strength of an adult to open the latch. Thus, these holders are not suitable for the purposes intended here, which mainly are to provide a coin or token holder with a quick release for use, especially by a child, to make a phone call in case of an emergency.

For example, U.S. Pat. No. 2,358,262 to Suess (1944) describes a bill clip that in one embodiment includes a clamping ring for encasing a coin for ornamental purposes as well as for providing extra money for emergencies. The coin is held in place by the pressure exerted around its rim by a fastener tied to two open ends of the ring. Therefore, the fastener has to be opened before the coin can be released, requiring the kind of effort that this invention is designed to eliminate.

## BRIEF SUMMARY OF THE INVENTION

It is therefore an objective of this invention to provide a device for securely and conveniently carrying an emergency telephone token strapped to the body of a user, either as a bracelet or a necklace.

Another objective of the invention is to provide a device that holds the token securely in place when subjected to the impacts of normal use, especially by children, and yet permits the prompt and easy extraction of the token when needed.

Still another goal of the invention is the realization of the above mentioned objectives with simple and inexpensive hardware.

In accordance with these and other objectives, the method and apparatus of this invention consist of a telephone token encased in a clamping ring with a link and hook for attachment to a bracelet or necklace chain. The ring is made of resilient material and features an elliptical inner surface with a major axis slightly larger and a minor axis slightly smaller than the diameter of the encased token. The token is mounted and released simply by forcing it in and out of the ring against the pressure exerted by the portions of the inner surface

corresponding to the minor axis. Such inner surface is flat and approximately twice the thickness of the token, so as to provide sufficient area of contact for it to remain in place when subjected to the impacts of normal wear. By pressing against it, a child can easily release the token from the device and use it for an emergency phone call. Another embodiment of the device includes a groove within the inner surface of the ring to further stabilize the token in place.

Various other purposes and advantages of the invention will become clear from its description in the specification that follows, and from the novel features particularly pointed out in the appended claims. Therefore, to the accomplishment of the objectives described above, this invention consists of the features hereinafter illustrated in the drawings, fully described in the detailed description of the preferred embodiment and particularly pointed out in the claims. However, such drawings and description disclose only some of the various ways in which the invention may be practiced.

## BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of the device of the invention.

FIG. 2 is a schematic representation of the geometry of the ring of the invention, illustrating its elliptic shape.

FIG. 3 is an elevational view of the invention wherein the telephone token consists of a U.S. coin.

FIG. 4 is a cross-sectional view of the ring of the invention in an embodiment including a retention groove.

## DETAILED DESCRIPTION OF INVENTION

The heart of this invention lies in the simple geometry of the inner surface of the clamping ring, which makes it possible to mount and release a telephone token or coin without the need to deal with a fastening clamp. Thus, the main objective of providing a token holder for easy and convenient use by a child is met.

Referring to the drawings, wherein the same reference numbers and symbols are used throughout to designate like parts, FIG. 1 illustrates the general configuration of the token holder 10 of this invention before a token is mounted in it. The holder comprises a clamping ring 20 that incorporates a link 30 on the outer surface 23 of the ring for attachment to conventional hook 40 looped therethrough and threaded by a chain 50 of a necklace or bracelet (shown only in part). Although the holder could be pinned to clothes or to personal belongings through the link 30, it is mainly intended for use with a necklace or bracelet, so that it can be continuously worn by a user and be always available in case of need.

The ring 20 comprises a generally flat and circular inner surface 22 that defines a clamping surface for the normally circular telephone token of the invention. As illustrated in schematic form in FIG. 2, the precise geometry of the inner surface 22 (and therefore also of the ring 20) is slightly off the shape of a perfectly circular ring. Specifically, the ring 20 features an elliptical shape with the inner surface 22 having a major axis a slightly larger than the diameter of the token and minor axis b slightly smaller than that diameter. In practice, the token used in the United States is a quarter coin and the generally circular ring 20 is selected with a diameter a few thousandths of an inch larger than the diameter of a quarter; then, it is slightly deformed to assume the

elliptical characteristics just described. Of course, the same result can be achieved by stamping or otherwise forming the ring directly in its final elliptic shape.

The ring 20 consist of a continuous shank constructed in a single piece. The material used for the ring must be resilient enough to permit the insertion of the token within its perimeter by pressure fitting the token against the inner surface 22 at the points corresponding to the minor axis b. As the rim of the token penetrates and presses against the inner surface of the ring, the ring conforms to the shape of the circular token and provides a frame within which the token is firmly encased. As shown in FIG. 3, which illustrates a token consisting of a U.S. quarter coin 24, the coin and the inner surface 22 are in forced contact in the areas near points c (corresponding to the location of the minor axis b) as a result of the expansion of the minor axis to accommodate the coin. This contact provides frictional resistance to movement that holds the coin in place. Obviously, no contact exists in the areas near points d corresponding to the major axis a, but the friction produced by the areas of contact is sufficient to ensure the stability of the coin. In order to provide sufficient surface for contact, the width w (shown in FIG. 1) of the ring 20 is preferably at least twice as large as the width of the token used. In the case of a quarter, a width of approximately  $\frac{1}{4}$  of an inch has proven to provide very stable support during normal use. As illustrated in the cross-sectional view of FIG. 4, although it has been found not to be necessary to practice the invention, a retention groove 26 can be added to the inner surface 22 to provide an inset for more closely engaging the framed token. This groove could run along the entire circumference of the inner surface or just along the areas of expected contact (corresponding to the minor axis).

It is found that a token can easily be inserted by anyone into a holder constructed according to the parameters described above simply by edging one side of the token against the inner surface 22 and by pushing the other side until it slides in place against the pressure provided by the elliptical shape of the surface. It is also found that a child can easily release the token by pushing on it while holding the ring still. Thus, an inexpensive and convenient device is provided for carrying a telephone token, such as a quarter coin, for immediate availability in case of need. The token can be released without the use of any tool, so that a child can quickly take advantage of it in an emergency.

While the invention is described in terms of a device for holding a circular token or coin, it is obvious that the same principle could be extended to applications involving tokens with other geometric shapes. The general notion of providing retaining pressure by mounting the token into a slightly deformed frame would still apply. For example, if a rectangular token were involved, a slightly rhomboidal frame would achieve the same result.

Therefore, it is understood that many equivalent devices are possible within the scope of the present invention, with different configurations of the clamping ring depending on the specific telephone token of interest.

Thus, various changes in the details, steps and materials that have been described may be made by those skilled in the art within the principles and scope of the invention herein illustrated and defined in the appended claims. While the present invention has been shown and described herein in what is believed to be the most practical and preferred embodiment, it is recognized that departures can be made therefrom within the scope of the invention, which is therefore not to be limited to the details disclosed herein, but is to be accorded the full scope of the claims so as to embrace any and all equivalent apparatus and methods.

I claim:

1. A device for holding a telephone token, comprising, in combination:

- (a) a circular telephone token;
- (b) an elliptical-shape clamping ring, having an inner surface with a major axis slightly larger than the diameter of said token and a minor axis slightly smaller than said diameter, wherein said token is inserted; and
- (c) a link, attached to the outer surface of said clamping ring, for securing the device for convenient access by a user.

2. The device described in claim 1, further comprising:

- (d) a hook, looped around said link; and
- (e) a chain, threaded through said hook.

3. The device described in claim 1, further comprising:

- (f) a retention groove along said inner surface of said elliptical-shape clamping ring.

4. The device described in claim 1, wherein said telephone token is a United States quarter coin.

5. A method for carrying a circular telephone token fastened to a user's body or garment for ready availability in case of need, comprising the following steps:

- (a) providing a telephone token;
- (b) providing an elliptical-shape clamping ring, having an inner surface with a major axis slightly larger than the diameter of said token and a minor axis slightly smaller than said diameter;
- (c) pressure fitting said token into said clamping ring; and
- (d) providing a link, attached to the outer surface of said clamping ring, for securing the device for convenient access by the user.

6. The method described in claim 5, further comprising the following steps:

- (e) providing a hook, looped around said link;
- (f) providing a chain, threaded through said hook; and
- (g) wearing said chain on said user's body.

7. The method described in claim 5, further comprising the step of:

- (h) providing a retention groove along said inner surface of said elliptical-shape clamping ring.

8. The method described in claim 5, wherein said telephone token is a United States quarter coin.

\* \* \* \* \*